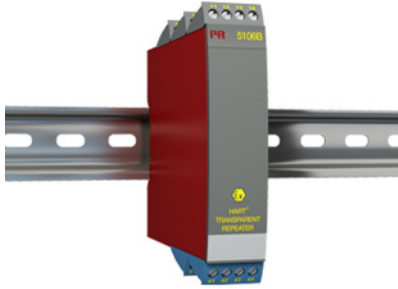


## HART® transparent repeater



### 5106B

- 3- / 5-port 3.75 kVAC galvanic isolation
- Low response time
- 2-wire supply > 17 V in Ex / I.S. area
- 1- or 2-channel version
- Universal supply by AC or DC



#### Application

- Power supply and Ex / I.S. safety barrier with 2-way HART® communication for 2-wire transmitters installed in the hazardous area.
- Ex / I.S. safety barrier with 2-way HART® communication for supplied current transmitters installed in the hazardous area.
- Signal isolator with low response time on analog current signals from the hazardous area.

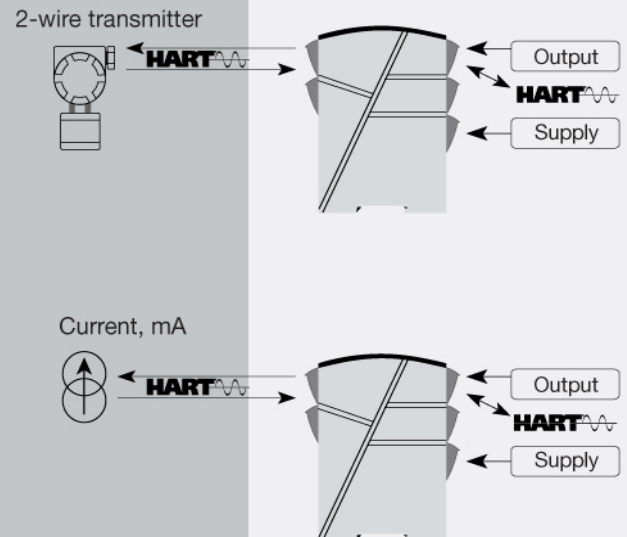
#### Technical characteristics

- PR5106B primarily processes current signals of 4...20 mA.
- PR5106B is based on microprocessor technology for gain and offset. The analog signal is transmitted at a response time of less than 25 ms.
- Inputs, outputs, and supply are floating and galvanically separated.
- The output can be connected either as an active current transmitter or as a 2-wire transmitter.

#### Mounting / installation

- Mounted vertically or horizontally on a DIN rail. As the devices can be mounted without distance between neighboring units, up to 84 channels can be mounted per meter.
- PR5106B is recommended as Ex / I.S. safety barrier for 5335D and 6335D.

#### Connections



**Order:**

Type	Input	Output	Channels
5106B	4...20 mA : B	4...20 mA : 2	Single : A
		20...4 mA : 9	Double : B

**Environmental Conditions**

Specifications range..... -20°C to +60°C  
 Calibration temperature..... 20...28°C  
 Relative humidity..... < 95% RH (non-cond.)  
 Protection degree..... IP20

**Mechanical specifications**

Dimensions (HxWxD)..... 109 x 23.5 x 130 mm  
 Weight approx..... 245 g  
 DIN rail type..... DIN 46277  
 Wire size..... 1 x 2.5 mm<sup>2</sup> stranded wire  
 Screw terminal torque..... 0.5 Nm

**Common specifications**

Supply voltage, universal..... 21.6...253 VAC, 50...60 Hz or 19.2...300 VDC  
 Fuse..... 400 mA SB / 250 VAC  
 Max. power consumption..... ≤ 3 W (2 channels)  
 Internal consumption..... ≤ 2 W (2 channels)  
 Isolation voltage, test / working..... 3.75 kVAC / 250 VAC  
 Signal / noise ratio..... Min. 60 dB (0...100 kHz)  
 Response time (0...90%, 100...10%)..... < 25 ms  
 Accuracy..... Better than 0.1% of selected range  
 Effect of supply voltage change..... < ±10 µA  
 Auxiliary supply: 2-wire supply (pin 44...42 and 54...52)..... 25...17 VDC / 0...20 mA  
 EMC immunity influence..... < ±0.5% of span  
 Extended EMC immunity: NAMUR NE 21, A criterion, burst..... < ±1% of span

**Input specifications**

Current input: Measurement range..... 4...20 mA  
 Min. measurement range (span), current input..... 16 mA  
 Input resistance: Supplied unit..... Nom. 10 Ω  
 Input resistance: Non-supplied unit..... Rshunt = ∞, Vdrop < 4 V

**Output specifications**

Current output: Signal range..... 4...20 mA  
 2-wire 4...20 mA output: Signal range..... 4...20 mA  
 Min. signal range..... 16 mA  
 Load (max.)..... 20 mA/600 Ω/12 VDC  
 Load stability, current output..... ≤0.01% of span/100 Ω  
 Current limit..... ≤ 28 mA  
 Max. external 2-wire supply..... 29 VDC  
 Effect of external 2-wire supply voltage variation..... < 0.005% of span / V  
 Output ripple..... < 3 mVRMS on HART communication  
 \*of span..... = of the presently selected range

**Approvals**

EMC..... EN 61326-1  
 LVD..... EN 61010-1  
 PELV/SELV..... IEC 364-4-41 and EN 60742  
 ATEX..... DEMKO 00ATEX127483  
 UL..... UL 913, UL 508  
 GOST R..... Yes  
 GOST Ex..... Yes